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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/SE94/00294</p> <p>(22) International Filing Date: 31 March 1994 (31.03.94)</p> <p>(30) Priority Data: 9301182-3 8 April 1993 (08.04.93) SE</p> <p>(71) Applicant (for all designated States except US): GIPECO AB [SE/SE]; Kabelvägen 8, S-553 02 Jönköping (SE).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only): SANDQVIST, Eide [SE/SE]; Spångvägen 7, S-560 27 Tenhult (SE).</p> <p>(74) Agent: CEGUMARK AB; Box 53047, S-400 14 Göteborg (SE).</p>		<p>(81) Designated States: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DE (Utility model), DK, DK (Utility model), ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report. In English translation (filed in Swedish).</i></p>
<p>(54) Title: CLEANING AID</p> <div data-bbox="341 1134 1331 1470"> </div> <p>(57) Abstract</p> <p>The present invention refers to a mop cloth (1) which along one of its surface treatment surfaces has a cleaning material (3), which is suited for damp or wet cleaning. According to the invention the mop cloth (1) is reversible, and on one of its surfaces opposite from said fluid wiping material exhibiting surface has a wiping material (7) which is suited for dry wiping, which exhibits a fluid absorbing function.</p>		

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Cleaning aid

The present invention refers to a mop cloth which along one of its surface treatment surfaces has a cleaning material, which is suitable for damp or wet cleaning.

5 Mop cloths are known, which are intended for either wet wiping or for dry wiping, but there are no mop cloths known, which are suitable for combined use for wet or dry cleaning.

10 The main object of the present invention is therefore at first hand to solve said problem with simple but yet with well functioning means.

Said object is achieved by means of a mop cloth according to the present invention, which in main is characterized therein, that the mop cloth is reversible, and on one of its surfaces opposite from said fluid wiping material
15 exhibiting surface has a wiping material which is suited for dry wiping, which exhibits a fluid absorbing function.

The invention is described below as a preferred embodiment, whereby is referred to the appended drawings in which

20 Fig. 1 shows a side of a mop cloth and which is intended for damp or wet cleaning,

Fig. 2 shows an opposite side of a mop cloth and which side is intended for dry wiping cleaning,

25 Fig. 3 shows a lateral view of the mop cloth with the dry side turned upwards,

Fig. 4 shows the mop cloth attached to a mop support,

Fig. 5 shows a sectional view of a mop support and attached mop cloth in a dry mopping position,

30 Fig. 6 shows a sectional view of a mop support and attached mop cloth in a fluid mopping position,

Fig. 7 shows an illustration of one part of a mop cloth seen from the fluid mopping side, and

Fig. 8 shows an illustration of one part of a mop cloth seen from the dry mopping side.

A mop cloth 1 according to the present invention and which along one of its surface treatment surfaces 2 has cleaning material 3 which is suited for damp or wet cleaning, is reversible in order to be used with its other side on other types of surfaces 4, namely for dry wiping of dry surfaces 5 such as walls, ceilings etc. The mop cloth 1 on its second side surface 6 opposite from said fluid wiping exhibiting surface 2 has a wiping material 7, which is suitable for dry wiping of surfaces 5, for example such as is shown in Fig. 6. Said dry wiping material moreover exhibits the function of being fluid absorbing.

Said dry wiping material 7 is appropriately constituted by a synthetic fibre composition similar to artificial fur lining. Preferably said material 7 is constituted by polyester or other suitable material, which exhibits dry cleaning ability to a high extent.

The said fluid influenced cleaning material 3 may be formed by a well known and patent protected cleaning material, which has fields 8 with a large number of small loops 9. Said preferably band shaped fields 8 are separated from each other in lateral direction 10 by several longitudinal 11 grooves 12, which can have arch shape and exhibit low bottoms 13, that is, that the bottoms 13 are situated at a lower level than said loops 9.

A frame textile 14, which is arranged to support the both cleaning materials 7 and 3 respectively acting in direction 15 and 16 from each other, is fluid penetrable, at least in a direction from said dry wiping material 7 towards the fluid influenced cleaning material 3.

The frame textile 14 extends in a direction 17-18; 19-20 out from said materials 7 and 3 respectively, so that the portions 14A, 14B opposite each other are formed at the frame textile 14. Said formed connection flaps 21, 22 are releasably connectable to a mop support 50, such as for example is shown in the drawings in Figure 4-6 and are fixed by means of clips 51, 52, 53, 54 which squeeze in the layed over flaps 21, 22 into grooves 55, 56 of the mop support 50.

5 A disconnectable foam rubber plate 75 layed in between can be fixed the underside of the mop support 50, by means of velcro fastening means, in order for example to achieve a sparing between the mop cloth 1 and the mop support 50.

10 In order for example to prevent breaking up of the cleaning materials 3, 7 along its periphery edge 3A, 7A a sparing 23,24 of for example edgings can be provided around said cleaning material 7 and 3 respectively. The edging is preferably attached by means of seams 25,26.

With reference to Figure 5 and 6 in the drawings the function of the present invention is according to the following:

15 Dry wiping is carried out by means of the material 7, which therefor is suitable on the intended surface 5. Reversal and fixing of the mop cloth 1 to the mop support 50 is carried out by the above stated, and after dampening or wetting of the mop cloth at a desired degree fluid cleaning mopping of intended surface 4 may be carried out.

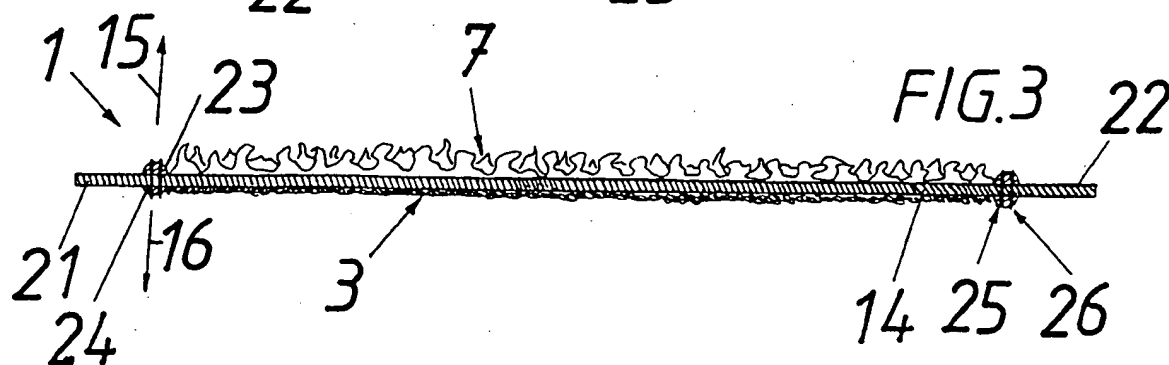
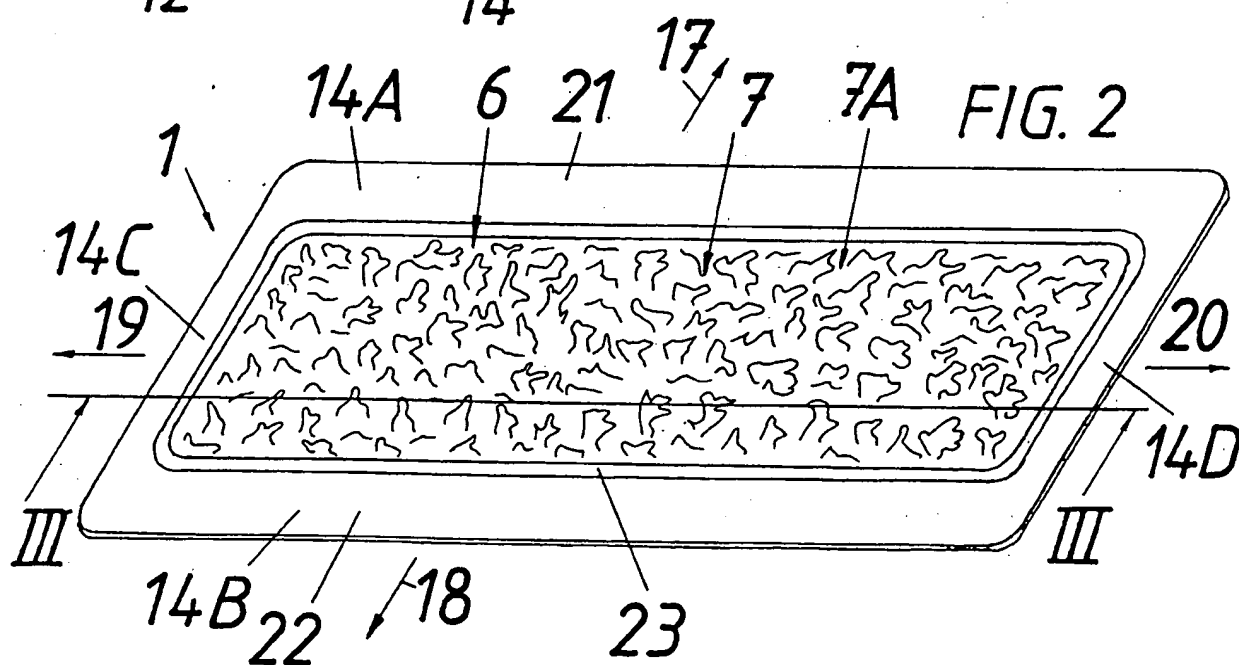
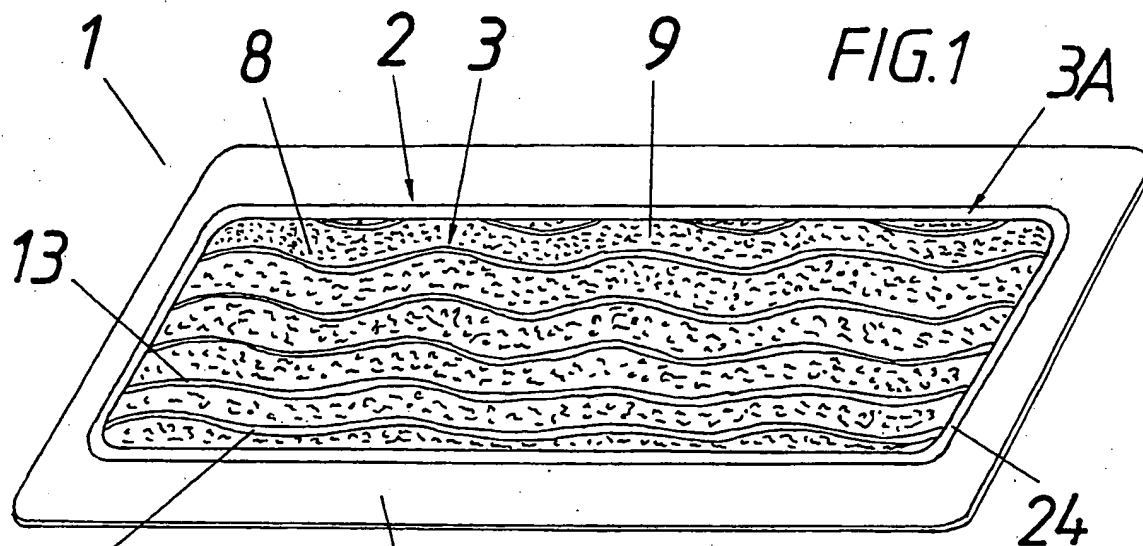
20 The advantageous feature of the material 7 thereby turned inwards against the mop support 50, which material is especially well suited as a dry wiping material, is that said material 7 also functions as a fluid store. At continued wet wiping, especially when the mop 1 and the mop support is pressed in a direction 57 against the surface 4 intended for wet wiping, the fluid from the material 7 will be pressed out in the direction 58 through the frame textile 14 to the wet wiping material 3.

30 The handling of the mop cloths 1 according to the invention after cleaning of intended surfaces by these may be carried out in a usual way as by conventional mop cloths.

35 The invention is not limited to the embodiment of the mop cloth described above and shown in the drawings, but can be varied within the scope of the patent claims without departing from the inventive concept.

CLAIMS

1. Mop cloth (1) which along one of its surface treatment surfaces (2) has a cleaning material (3), which is suited for damp or wet cleaning, characterized therein, that the mop cloth is reversible, and on one of its surfaces opposite from said fluid wiping material exhibiting surface has a wiping material which is suited for dry wiping, which exhibits a fluid absorbing function.
2. Mop cloth according to claim 1, characterized therein, that a frame textile (14) carrying said both cleaning materials (3, 7) is fluid penetrable and extends from each other opposite portions (14A, 14B) outside the same forming connection flaps (21, 22) connectable to a mop support (50).
3. Mop cloth according to any of the above stated claims, characterized therein, that the dry wiping material (7) is constituted by a synthetic fibre composition similar to artificial fur lining.
4. Mop cloth according to claim 3, characterized therein, that the material is constituted by polyester.
5. Mop cloth according to any of the above stated claims, characterized therein, that the fluid influenced cleaning material (3) has fields (8) with a large number of small loops (9) separated from each other by longitudinal grooves (12) with low bottoms (13).
6. Mop cloth according to any of the above stated claims, characterized therein, that about said cleaning material there is provided a sparing (23, 24) of edgings.
7. Mop cloth according to claim 6, characterized therein, that the edging is fastened by means of sewing (25, 26).



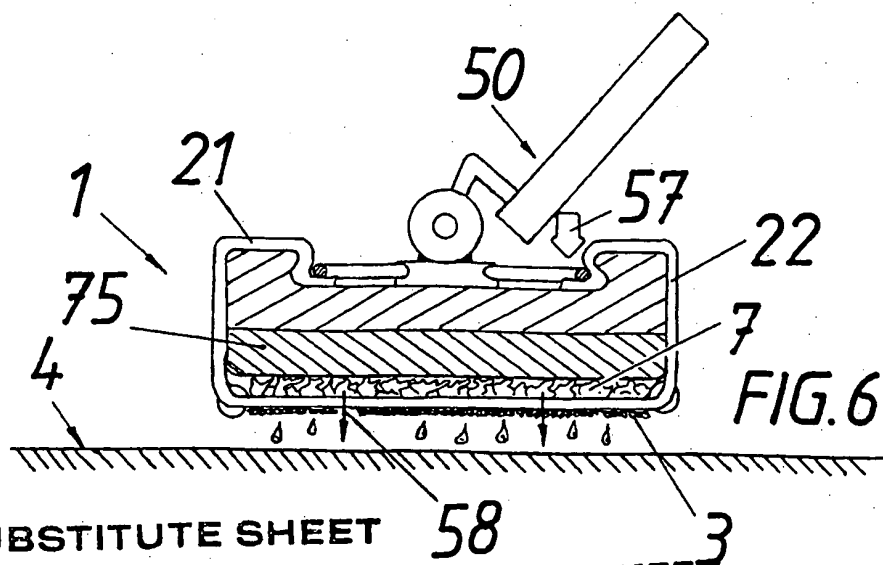
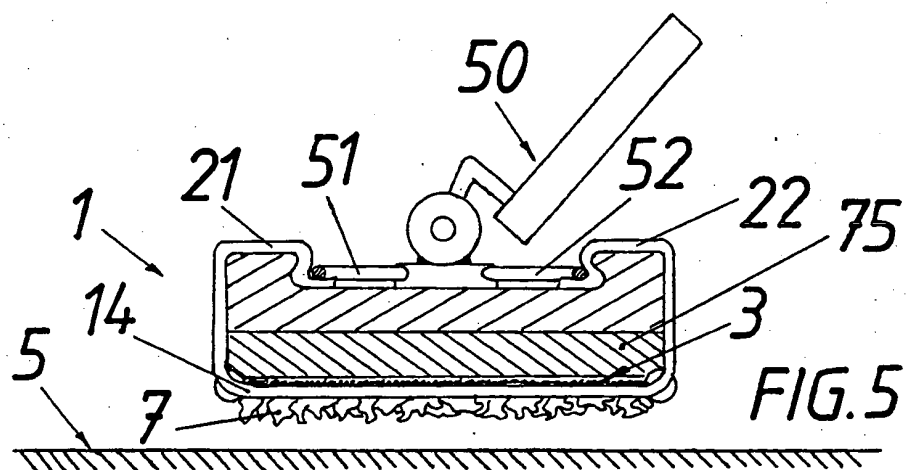
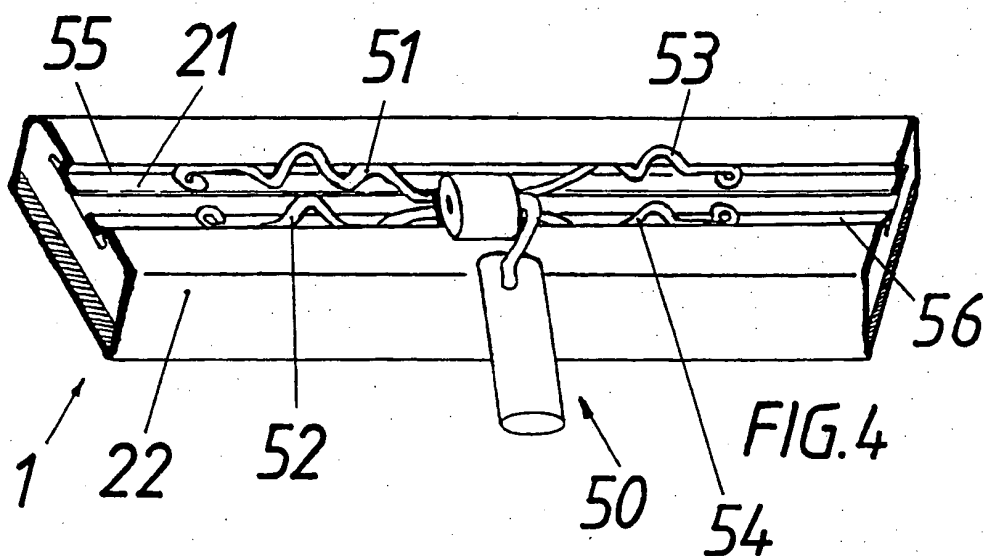
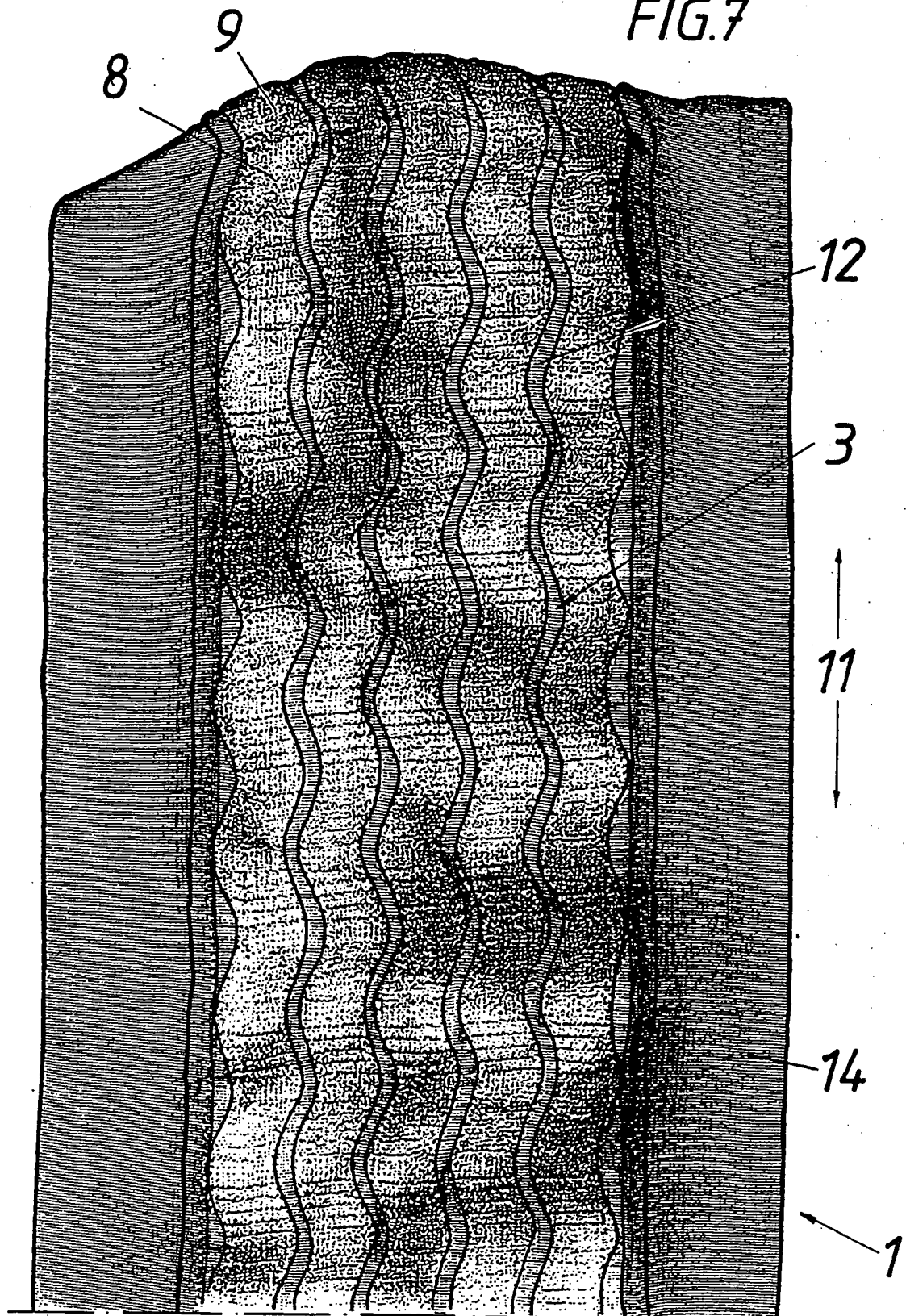
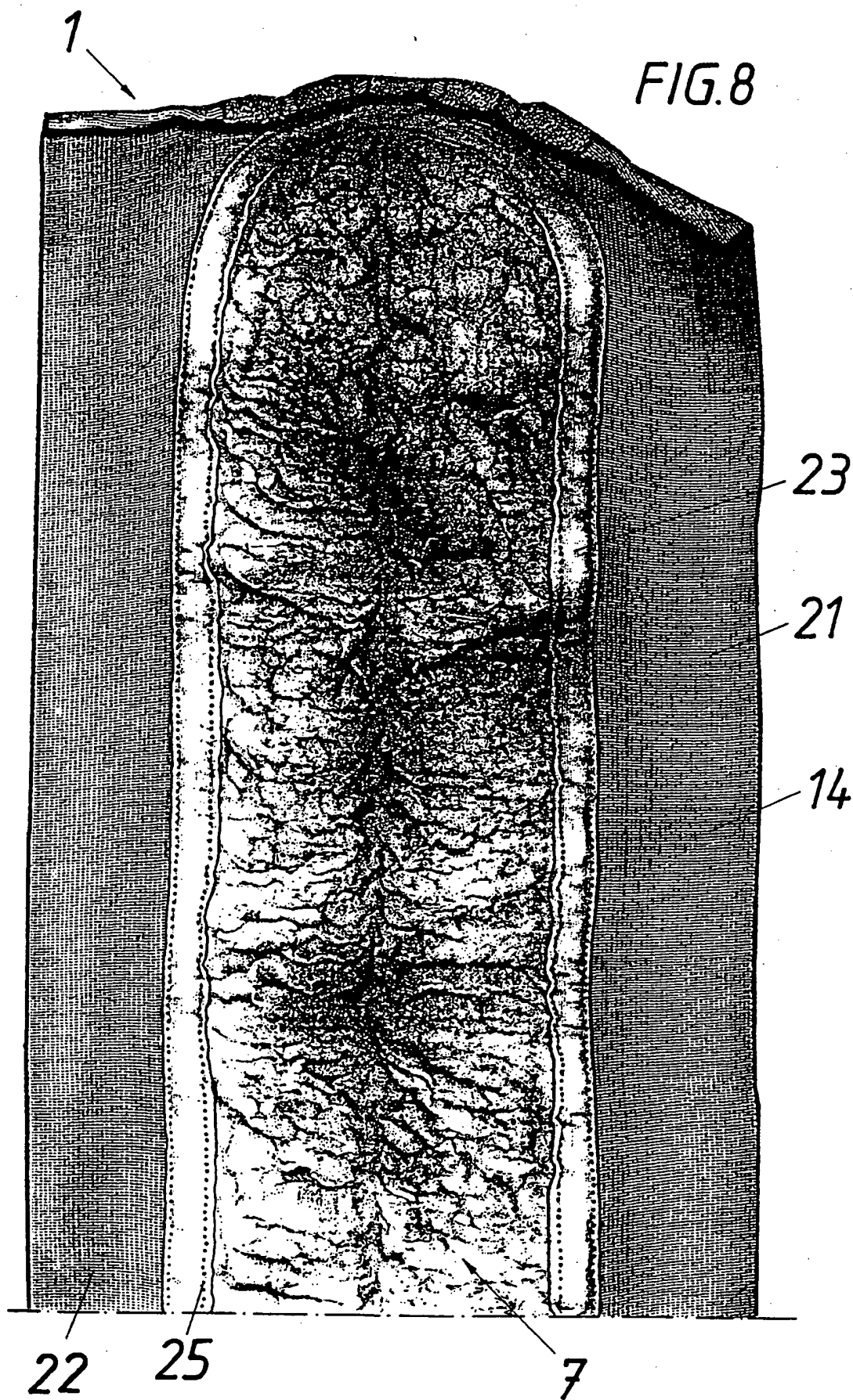


FIG. 7



10
SUBSTITUTE SHEET



INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 94/00294

A. CLASSIFICATION OF SUBJECT MATTER

IPC⁵: A47L 13/16, A47L 13/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁵: A47L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SE, B, 431158 (BELE RESEARCH AB), 23 January 1984 (23.01.84), page 5, line 36 - page 6, line 26, figure 3 --	1-2
A	EP, A1, 0458542 (SCOT YOUNG RESEARCH LIMITED), 27 November 1991 (27.11.91), figure 1, abstract --	1-2
A	WO, A1, 8605082 (BENGTSSON, STURE ET AL), 12 Sept 1986 (12.09.86), figure 1, abstract -----	5

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT
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16/04/94

International application No.
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
SE-B-	431158	23/01/84	SE-A- 8004718	27/12/81
EP-A1-	0458542	27/11/91	AU-A- 7726191	28/11/91
WO-A1-	8605082	12/09/86	AU-A- 5581886	24/09/86
			EP-A,B- 0250429	07/01/88